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SWAN RIVER DAISIES.-(BRACHYCOME.)



APRIL, 1885.

THE PLANTING SEASON at the North fairly opens with April. As soon as the soil is in proper condition a great variety of garden work can be performed. The spirit of improvement is now so diffused in this country that there are few owners of suburban and village residences who do not make some effort to maintain a piece of lawn surrounding the house, and usually the result is very creditable. Thanks to the little lawn mower, these bits of green can easily be kept in good condition, and of themselves render the scenery pleasant. What is most noticeable, however, is the lack of taste displayed, with rare exceptions, in the trees and shrubs occupying these grounds, and in the disposition of them. It is evident that the appreciation of beauty in trees is, to a great extent, lacking, the taste is yet undeveloped among those who have the opportunity of exercising it. Here and there are to be found grounds that have been laid out and planted with care, which contain valuable trees, and some of them of great beauty; but these we all know to be striking exceptions. There is no reason why places of moderate size, or those having a width from a hundred down to even fifty feet, should not be embellished with handsome trees and shrubs.

The history of the nursery trade in this

country exemplifies, by many amusing and instructive facts, the sway of fashion over people lacking in true taste, or a genuine appreciation of beauty. At one time the Kilmarnock Willow was thought to be the proper thing to plant, and every one must have it; the nurserymen, for a number of years, could not supply the demand, it was a good thing to set almost any where, on low ground or high ground, in the midst of other trees or alone on the lawn, on the small town lot, or that of the suburban mansion, close by the dusty street or in a more retired spot, it was the style to have it and it must be planted. Later sprang up a demand for the White-barked Birch, alone or in pairs with the Purple-leaved Beech, and these have been planted in many localities, until their frequent appearance is almost wearisome. Many similar instances might be given, but these sufficiently indicate a lack of true taste in tree planting. The exhibition of a positive preference by planting one kind of tree to the exclusion of all others is not an evidence of good taste, though apparently it is sometimes so considered. Probably not a few of us can recall instances of grounds planted exclusively with Sugar Maples, while these also lined the roadway. At one time, the Yellow Locust was much planted, and we have seen

country places with an acre or two of lawn about the dwelling, and having a dozen or two of Locust trees in rows, or standing singly, with scarcely another tree in sight, unless it might have been a single Black Spruce or a Balsam Fir with a naked trunk for a distance of ten or twelve feet from the ground.

Within a few years a gentleman of intelligence, wealth and culture, planted the large grounds surrounding his suburban residence entirely with the American Elm, set in rows, one other tree only, a Locust, which had been placed there by a former owner, gave any variety to the arboreal scenery. When the statement is made that the grounds, being large, were bordered on two sides by streets, and that these streets, as well as that in front, were lined with Elm trees, not only adjacent to the place, but for long distances, it will be seen how poor a conception of beauty must have controlled in the planting arrangement.

When we think of the great variety of our native trees, it would seem that there is no proper reason why they should not be numerously represented on large grounds, and especially on the grounds of public institutions, which are often ample for the purpose. The value of these trees in their ornamental aspect is sufficient to warrant a considerable effort to procure and plant them.

The difficulties attendant upon procuring many species of native trees is a valid excuse for their disuse on private grounds. But a far greater variety is obtainable from nurserymen than is generally employed.

With commendable intelligence and enterprise, our nurserymen have procured, and tested, and proved a collection of trees that are hardy and suitable for planting in all parts of the country. These trees are of great variety and dissimilarity, and many of them of wonderful beauty of form and foliage, and they should be better known and more commonly planted. Some of them are of medium size and of compact habit, and even a comparatively small space of ground will admit of the exhibition of a number of specimens.

It is a pleasure to know that public attention is, at present, more engaged with tree planting than ever before; arbor days are legally established in some

States, and in one way and another people are turning their thoughts to this subject. There are many good and substantial reasons to encourage the desire that the spirit of tree planting may dominate in our rural life. Memorial trees might oftener be made to symbolize our affection and esteem, and the objects about which shall cluster associations of family joys and public good will. To plant trees with appropriate ceremonies and festivities in memory of birthdays, and other family events, is a simple but sure means of binding closer those family ties which are the dearest that earth can know; and in what more appropriate manner could we honor those who have prominently distinguished themselves in public life, and earned the gratitude of society!

A glance at the nurserymen's catalogues shows how rich is the collection open to our choice. Among the Maples, besides a dozen well defined species that are available, there are numerous varieties distinguished by peculiar forms of outline and peculiar forms of leaves and differences of coloring. Our Silver Maple, for instance, affords four marked varieties; the Crisp-leaved, having its foliage deeply cut and crimped, and being a tree of medium, and rather compact, growth; the Cut-leaved, a luxuriant, erect grower, with handsomely cut or divided leaves; Wier's Cut-leaved, with cut or divided leaves, and having slender shoots of a drooping habit, giving a very graceful appearance; the Three-parted-leaved, a vigorous, upright grower, with leaves that are cut nearly to the midrib. The Norway Maple, besides the typical species, supplies seven distinct varieties, which are the Cut-leaved, the Eagle's Claw, the Gold-margined, Lorberg's, an elegant variety with deeply cut foliage, Reitenbach's with purplish leaves, and Schwedler's, also with purplish leaves. The Sycamore Maple has a number of beautiful varieties, and there are still others. How many of our readers are aware that the trade supplies eight distinct varieties of the Horse Chestnut, besides the familiar common form, yet such is the fact. Our space will not allow even the mention of the many fine varieties of the Alder, the Birch, the Cherry, the flowering Thorn, the Beech, the Ash, the Oak, the Locust, the Willow, the Linden, the Elm, and many other kinds.

THE PIEBALD TREE MALLOW.

The engraving of *Lavatera arborea variegata*, herewith presented, gives an idea of the appearance of the foliage of a Malvaceous plant that is now before the public for approval. The original, or

sufficiently hardy to bear the winters in severe climates. A still more commonly cultivated species of *Lavatera* is *L. trimestris*, an annual, growing two or three feet high, and bearing freely pinkish and,



LAVATERA ARBOREA VARIEGATA.

green-leaved form of the plant, *Lavatera arborea*, the Tree Mallow, is an old occupant of the gardens, and in mild localities attains a height of ten, twelve, and sometimes fifteen feet, justifying its common name; it is a perennial plant, and not

also, white mallow-like flowers. The variegated variety, *Lavatera arborea variegata*, is of recent origin, and has received favorable notice in Europe and Great Britain. The plants are easily raised from seeds, are healthy and strong

growers. The seeds can be started in the house at any time in spring, and the young plants can be turned out for the summer as soon as the weather admits. Early in autumn the plants should be lifted and potted, and be taken inside for the winter. It is said that the leaves sometimes do not show variegation until the second season, and, ignorant of this fact, people are sometimes disappointed with their seedlings in their early stages of growth. Those who have tested the plant speak of it with favor. The foliage is described as handsomely and irregularly blotched with dark green, pale

greenish gray and creamy white. It will prove particularly serviceable as a striking center plant for beds, and to group with sub-tropical plants, and also for the greenhouse, its peculiar foliage contrasting with the green of other plants; by its bold, erect form it will also stand in relief. The plant will bear pinching in and pruning at will, thus enabling it to be trained into almost any desired form. Plants are freely propagated by cuttings as well as by seed, and the former method will, no doubt, be employed to perpetuate unusually fine specimens of this *Lavatera*.

THE SWAN RIVER DAISY.

As a low, spreading plant to raise in masses or patches, thickly covering the ground, the Swan River Daisy is quite desirable. The colored plate, this month, is a very faithful representation of it. The foliage, it will be seen, is extremely delicate, and the flowers are freely produced. The plant is an annual, and was originally brought from the Swan River, in Australia, where it is a native. The plant, in its wild state, is the blue-flowered one, and this must be considered the type of the species, *B. iberidifolia*, the Iberis-leaved, that is Candytuft-leaved, *Brachycome*. The white form is a variety that has been fixed by cultivation. Two other varieties, also, are nearly or quite established, one being a soft rose with a delicate lilac shade, the other blue with a pure white crown or ring around the center. The seeds can be started early in the house, and the little plants set a few inches apart in the garden when steady, mild weather has come; or the seeds can be sown thinly in rows in the border, when the soil

is warm and the frosts are past. The flower of this plant has a style of beauty quite its own and singularly rare, and which one unhesitatingly appreciates and admires. It is sufficiently like the wild Daisy to warrant its common name. The most matter of fact mind could scarcely fail to recognize the expression of purity and simplicity in this flower, like that of sweet childhood. Oh, what is the power of beauty in flowers that can thus cast over us their spell, and lead captive the imagination!

" Each tiny leaf became a scroll
Inscribed with holy truth,
A lesson that around the heart
Should keep the dew of youth;
Bright missals from angelic throngs
In every by-way left—
How were the earth of glory shorn
Were it of flowers bereft.

" They tremble on the Alpine height—
The fissured rock they press—
The desert wild, with heat and sand,
Shares, too, their blessedness;
And wheresoe'er the weary heart
Turns in its dim despair,
The weak-eyed blossom upward looks,
Inviting it to prayer."



CORRESPONDENCE.

ANNUALS IN THE WINTER WINDOW-GARDEN—PRIZE ESSAY.

What annuals can be satisfactorily raised in the winter window-garden, and how are they best managed?

Eight or ten years ago I began experimenting with annuals in the house in winter, sometimes only from curiosity, and because they gave interest and variety to the work, and I find those in the following list can be very safely recommended: Alyssum and Mignonette for fragrance; Petunias, Schizanthus, Asters, Balsams and Mimulus for their free-flow-

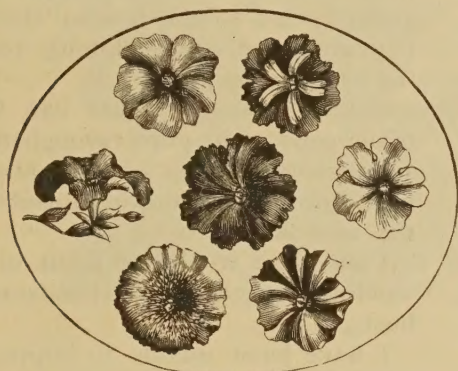
fourth part sand, and a little leaf-mold, agrees with most plants. Cuttings that root easily, such as those of Petunia, Browallia, Ageratum, &c., I plant firmly in a pot of very sandy soil, water well and place in a sheltered corner of the veranda, where they are shielded from the strong winds and the hot noon-day sun, but get the morning sunshine; keeping the soil moist, they root in a very few days.

Seeds of Sweet Alyssum I start about the last of August. From three to six young plants can be placed in a good sized pot. A good light is needed while the plants are young, but after flowering much sunlight is not required. Alyssum is good for baskets, but mine are drooping from a bracket on a level with my face, that I may the more conveniently inhale their fragrance, so like the sweetness of the wee white Violets I used to gather from the sunny knolls in the old orchard.

Ageratum I prefer to grow from cuttings, but young seedlings do equally well. I take cuttings from flowering plants in the garden, about the middle of summer, and pot for the house after they are well rooted; they are loaded with flowers all winter. Once I neglected to take cuttings at the right time, but had plants on the veranda that had been blooming in pots all summer. I cut them back severely; they rapidly made a new growth and bloomed well, but not so freely as those grown from cuttings.

Alonsoa will please those who like small, bright flowers. Young plants can be potted in the fall, and with care, if kept rather warm, will flower well.

Aster seeds can be sown late in the spring, or in June, and the young plants transplanted several times; this will cause them to be "stocky," and to have good roots. Give a rich soil and plenty of room in a cool place. If the weather is dry, water and mulch. Thus treated, handsome specimens may be obtained, which may be taken up in the fall when



PETUNIAS IN VARIETY.

ering qualities, and Browallia, Lobelia and Ageratum for blue colors. The following are also very good: Candytuft, Canna, Vinca, Stock, Mesembryanthemum, Alonsoa, Salvia, Phlox, Portulaca and Mimosa. For climbers there are Cobæa, Maurandya, both excellent, Ipomœa, Thunbergia, Cardiospermum and Tropæolum, all but the first mentioned suitable for baskets. Many coarse annuals, too, can be flowered in the window, though it is not advisable to give them room often. When the requisite coolness and humidity of air can be secured, we may have some of our little moisture-loving favorites, such as Whit-lavia, Nemophila, and even the Pansy.

How are they best managed? In starting seeds and cuttings, or in potting plants, I am always careful to have good drainage, generally using charcoal, for it is convenient, and helps to keep the soil in the pots sweet. A good rich soil, free from insects, and made light with a

in blossom. Place each plant in a pot just large enough to hold it easily, and remove to a cool situation in the house.

Browallia seeds can be started in the summer, and the plants raised in pots, and brought along in the cold-frame, if this convenience is possessed. As the plants grow, pinch them back occasionally, don't neglect it, and they will branch out generously, and be in good condition to take in the house in the fall. Use some leaf-mold in the soil. I prefer to grow them from cuttings. A fair amount of sun, warmth and water seems to suit them. They brighten my window all winter with their cheerful and abundant blue and white flowers. The green aphid

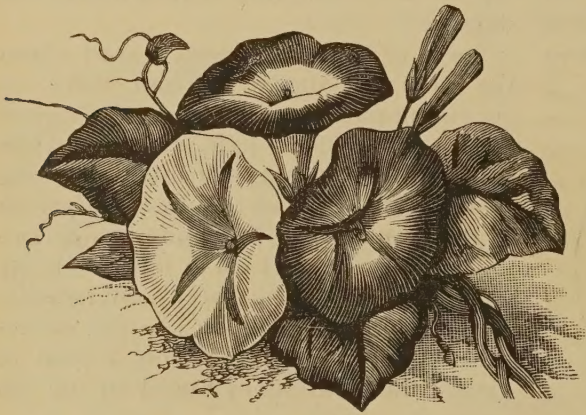
autumn, and every one was surprised and interested to see them blooming freely in the winter beside my choice greenhouse plants.

Canna is one of the few things that will bear to be taken up roughly, and brought forward to the heat and light without ceremony. I generally take two large pots, just alike, plant a clump of a dark variety in one, and one of light ones in the other. Placed each side of the window they match well, and give the winter garden a tropical aspect. *Cannas* will flourish, blossom, and even ripen their seeds in the winter, if their quarters are warm and sunny. When the old stalks are done blooming, they can be cut away, giving room to the younger shoots, which will bloom in their turn; when they, also, can be cut away, giving place to the fresher stalks that are constantly springing from the roots of the plant.

Celosia; young plants can be taken care of in pots, through the summer, or plants can be lifted from the garden and removed to the window.

I once saw a *Cleome* plant in a window, and it was a handsome bush.

I have been unable to improve upon my first experience in starting *Cobœa* seeds. In March, I planted them, edgewise, in a well-drained box of very light sandy soil. The earth was moist, so I did not water any, but dipped a flannel cloth in water, wrung it, and wrapped the whole box in it, and placed it behind the sitting-room stove. As often as the cloth became dry, I repeated the operation, watching closely till I knew the seeds had sprouted by the earth being lifted in little places in the box. Then I dispensed with the cloth, and immediately placed the box in a warm, sunny window. In a few hours the lubberly young plants lifted, and were helping themselves to their first meal of sunshine. When they were about four inches high, I potted one of the best in an eight or ten-inch pot, giving support. When four or five feet high I transplanted it to one end of a large window box, which was furnished with other plants, a high arched trellis and castors. I kept it on the veranda through the summer, then it was removed to the win-



MORNING GLORY.

loves the *Browallia*. I look for him if I see a leaf turning brown. He is easily smoked out without harm to the plant.

Young *Balsam* plants can be potted when two inches high, shifting as needed to a size larger pot; but the best way is to take cuttings from the side branches of the best varieties, about the first of August. When potted for the house, give a rich soil and good light. After the blossoms are well developed they are more enduring if kept somewhat cool.

Any of the *Calendulas* or *Marigolds* will blossom in the house, if one cares to give them the room.

Candytuft is beautiful in a hanging basket. The white is the prettiest. With good soil and treatment it will bloom long and abundantly in the winter. Seeds can be sown directly in the receptacle in which it is desired that they should flower, if preferred.

Centaurea Cyanus; I once transferred a few thrifty young plants of *Bachelor's Button* from the garden to the house, in

dow, where it bloomed long and continuously. In using large boxes for flowering plants, I improvise partitions, so that the roots of each plant may have no more room than it needs. I place shingles or thin boards, edgewise, in the box. The earth will hold them in place. This causes the plants to flower very freely. The *Cobœa* requires a rich soil, plenty of room, warmth, sunshine and water. I start *Cobœa* cuttings in sand, under glass, and sometimes propagate them by layering, cutting a notch near a joint.

Convolvulus; if I could afford nothing but Morning Glories, I would still have a



TROPÆOLUM.

gay winter garden. One came up by chance in my window, and bloomed finely. *Convolvulus minor* is beautiful in baskets, the flowers looking as delicate as soap bubbles.

Cardiospermum seeds grow easily, if started in a warm place. The plant grows fast, and is a pretty vine for the house, but will not bear getting chilled. With me it is troubled with the aphids, but he is easily smoked out.

Dianthus can be flowered in the house, but winter Carnations are so much nicer that it hardly pays.

Fenzlia is a little jewel in pots or mixed baskets.

Ipomœas are nice in pots with trellis, or baskets. They require considerable heat. *I. coccinea* will run above the windows in winter.

Leptosiphon is delicate and pretty in pots or baskets. Give it a light soil and a cool place.

Linum; this airy and graceful flower is quite pretty in mixed baskets. I never tried any but the red in winter.

The trailing annual *Lobelias* are valu-

able for winter use, especially suitable in small baskets. Seeds start readily in a light rich soil, and even young young plants, if given good light, grow fast in the winter garden and bloom freely. The deep, rich blue is very lovely grown in the same pot with *Alyssum*.

For winter use seeds of *Maurandya* can be started late, but I prefer to take cuttings from plants on the veranda or in the garden. The fine branches, with their delicate but abundant foliage and beautiful flowers, should be allowed to droop, or run up the wires of the basket and loop and twist about in their own graceful way. A rich, light soil, warmth and sunshine suit it.

Mignonette one should never be without, for it can be grown at any time. Its perfume reminds me of the delicious fragrance of freshly gathered red Raspberries. Sow seeds the last of August. It will droop if you prefer it to; it is a good companion to *Alyssum*. With these two sweet little flowers, and a few small *Rose Geranium* leaves, worn in the corsage or the hair, no jewelry is needed, and in contrast with their fragrance, the most costly perfume is gross.

Mesembryanthemums are easily grown from seeds, adapted to baskets. Care must be taken not to break their tender branches. I am careful to give them fresh air to prevent their damping off, as they sometimes do if kept too warm and moist without air; still they will not do well in a chilly room.

Mimulus is an excellent winter bloomer; healthy, and requiring only good, fair care. Its branches are tender, and care should be taken not to break them. It is a nice basket plant. *M. moschatus*, yellow, though not quite as pretty as some varieties, is interesting on account of its musky fragrance.

Nolana is a good basket plant. For winter use, seeds can be sown in July. It transplants easily, does best in a light, sandy soil. Flowers resemble those of *Convolvulus minor*, but are more solid, and close in the afternoon.

Nemophila is one of the loveliest little flowers when well grown. It has fern-like foliage and perfect form. If seeds are sown late, we may have them in winter, if a cool place and humid air can be secured.

If *Nierembergia* seeds are sown late in the summer and the young plants transplanted to a basket, they will give their graceful flowers in the winter.

Phacelia makes a charming pot plant, not so much on account of its neat little flowers as for its abundant fern-like foliage and beautiful form. It must be well watered, and needs a cool, moist place, but is not so particular in this respect as *Nemophila*. I have only tried the blue *Phacelia*.

Portulaca; it is well to fill a pot or basket with cuttings about the last of August, for they root quickly and bloom well in the house in winter.

I love Pansies so well that I always try to find a place to suit them. I have a large, well ventilated, mouse-proof cellar, well lighted by double glass windows. On the broad ledge of the south window, I sometimes place a box of Pansies, and sometimes *Nemophila* and *Whitlavia*, and they do the best there of any place I ever tried. Last summer, I found that I could start *Whitlavia* from slips, for I did, in July.

Perilla is quite serviceable as a foliage plant for the house, if one has nothing better. The leaves of my variety have a strong, peculiar, but pleasant scent.

The *Petunia* is something of solid worth. I used to take late plants from the garden, that had not bloomed, looking as though they were ready to do the best of service, but with the best of care they never would bloom till toward spring. The right way every time is to take slips. A year ago last July I started a box of cuttings of the best single varieties in my garden. They rooted nicely, and I planted five in a box fifteen inches long by nine inches wide, placing one plant in the middle and one in each corner. The rest I gave each a pot by itself. Supports were given, as they always should be to all plants that need it, keep the plants in good shape. The first of October they began blooming, and oh, what a wealth of blossoms those *Petunias* gave for ten months. All through the dead of winter there were from two hundred and fifty to three hundred blossoms, which hung in wreaths—white, red, striped and blotched—in that box alone, besides hundreds of buds just opening. And the foliage, as beautiful as that of a *Heliotrope*, was so thick and green, drooping over the box, completely hiding

the soil and supports. I use soot-water quite freely on all my plants, for I am certain that it helps to keep the lower foliage bright. *Petunias* like sunshine and plenty of warmth. They need more warmth to produce flowers than to produce leaves. This winter I have them in hanging baskets.

Phlox will bloom gayly in the winter garden, and young plants can be grown in summer for this purpose. Give them fresh air, and do not crowd them too much, or they will mildew.

Sensitive Plant; start seeds under glass, and pot one of the best of the young plants, plunging the pot in the earth, after the weather is warm, transferring it to the house in the fall.

Ten-Weeks Stocks, for winter use, I would prefer to raise from seeds sown late in the season, if it were not for the danger of the plants proving to bear single flowers, and single *Stocks* are worthless. So I go to the garden, when the character of the plant is determined, and very carefully take up the best of the most backward, and pot them in rich soil, plunging the pots in a cool place, keeping watered if the weather is dry. When removed to the house keep cool and moist.

Seeds of *Schizanthus* sown in July or August, in light, rich soil, will give plants that will bloom in winter; but, for earlier use, old plants may be removed from the garden to the house.

Thunbergia seeds germinate easily if kept warm and moist, either in the house or later in the open ground. I place the eye of the seed downward. Pots with young plants may be plunged during the summer, that is, buried in the earth to the rim of the pot. Give the vines support early and pinch occasionally. Or, cuttings may be taken from plants in the garden. The red spider sometimes attacks it, but has never troubled me. *T. alata* grows from twelve to fifteen feet high here in the open ground. I think *T. Bakeri* is the prettiest.

Tropæolum Lobbianum is easily grown from seeds or cuttings. It is free from insects, and fine for pots or baskets. I always take especial pains with the drainage, and have the soil such as water will readily perforate, or they will sometimes drop their lower leaves, which ruins the appearance of any plant to me. A too heavy soil is, in effect, only another style

of bad drainage. With me, a somewhat cool, moist air and even temperature suit it best.

I have also experimented with Euphorbia, Mirabilis, Antirrhinum, and others,

with indifferent success. I intend to try them again. In conclusion, I would say to all: Grow flowers, "love truth, love GOD, love virtue, and be happy."—JULIA REYNOLDS BEERS, *Bucklin, Mo.*

ARBUTUS.

Here, underneath the snow, a flower
Is waiting for an April hour
To come, with blithe and balmy breeze,
And blow the spring across the leas;
Is listening, while it sleeps, to hear
The light, fleet footsteps coming near
Of warm, spring rains, that make the rills
Flash out, like silver, on the hills,
And singing, laughing, leap away
To seek the sea; and some sweet day
A Robin's song, or bubbling note
Of music from a Blue-bird's throat,
Will bid it put its dreams away,
And say good morning to the May.

We need not see the flower to know
What time Arbutus blossoms blow;
For every wind that wanders here,
Will tell the tidings far and near;
A breath of fragrance, like a thought
That haunts you, but will not be caught
In words that fit the subject well;
Who shall describe the subtle spell

The pink Arbutus blossoms bring,
To weave about the world in spring?

We'll brush the last year's leaves aside,
And find where the shy blossoms hide,
And talk with them. We need no words
To tell our thoughts in. Winds and birds
And flowers, and those who love them, find
A language nature has designed
For such companionship. And they
Will tell us, each in its own way,
Things sweet and strange—new, and yet old
As earth itself, and yearly told.
But there are men who have grown gray
Among them, and have never heard
The voice of any flower, and they
Laugh at men's friendship with a bird.
But we know better, you and I,
Dear little flower, beneath the snow;
Let these most foolish wise men try—
And fail—to prove it is not so.

—EBEN E. REXFORD.

DANGER AHEAD.

Isn't it high time that our people were educated in facts concerning climatic influence of forest growth? While I write, the wind is blowing a gale from the west, and the thermometer is at zero. There is scarcely a break to check the force of the gale for a mile to the westward until it reaches my grove.

There was a lull in the storm, this morning, and we went out to break roads. Along some of our highways, where the old rail fences once stood, there is an occasional Oak tree and underbrush of young Oak, Black Cherry and Hazel. Wherever we came to a clump of this kind our snow plow had little to do. This was more especially true when several trees stood not far from each other. In spite of the fact that we have a law which compels a portion of our tax to be expended in the planting of trees along the highways, we find men, here and there, removing every vestige of native growth, which answers really a better purpose than the transplanted trees. Only last week, a neighbor "whacked down" three or four beautiful White Oaks along his west line, where they had stood since my earliest remembrance, a

protection from the fierce winds of winter and the hot sun of summer; beautiful representatives of a race that is rapidly becoming extinct. When remonstrated with, he replied that there was too much wood in them to be wasted in show, when our winters were growing colder every year, and then there were several other trees directly across the way that made a good enough wind break.

Within the next week, his neighbor across the way, following his example, cut his trees down, too, and now there is a clean sweep for the wind.

Only the other day we learned that a leading farmer of our State had been caught in a blizzard in Dakota, when going to his new ranch, and was afterward found frozen to death. It came like a shock to all of us who knew him. An intimate friend of his, a devout man, knelt with his family that morning upon receiving the sad intelligence, and thanked God that they lived in a State far removed from these terrible winds that come upon men like murderers in the night, destroying life and desolating households. A few moments thereafter, he sent his men to the little wood lot

that had been preserved at the back of his farm, saying: "Boys, I have decided to cut it all off; I can sell the timber for enough so that the interest of the money will always keep the house in wood, and what we can raise on the land will be clear gain." What strange inconsistency. Thanking God one moment for conditions which prevent blizzards, and the next, with ax in hand, doing the very best to bring the blizzard to his door.

A friend with whom I have familiarly chatted by letter upon this subject, writes in his last letter: "Tree destruction has rendered great regions uninhabitable, and has been an efficient cause of the degradation of humanity." How true it is that ruthless destruction of forest areas leads to barrenness, and barrenness to a decadence of society and intelligence; and still how little thought is given to this great problem.

How can we get people to give consideration to this matter? How can we get men to rise up and take a long look ahead? I reply, by becoming more sure

of our facts; by gathering testimony that will have weight, and using it; by placing before the public an array of statistics that cannot be doubted, and if properly used will startle our people into a proper consideration of the subject. By this I do not mean the selection of a commission of shelved politicians to go abroad ostensibly to study forestry, but really on a pleasure trip at government expense. But our agriculture and horticulture, our progress in civilization, demand that the facts which led Germany and France into their admirable forestry regulations, should be placed before our people, not so much that we may follow them in their timber planting and culture, but that we may see at once what they learned when the time for preservation was well nigh past, and renewal had to be instituted.

This question of the proper disposal of our timber areas is one of vital importance. We cannot talk about it too much. We cannot afford to put off the day of practical effort and sensible legislation.—CHAS. W. GARFIELD.

BARBADOES AND OTHER TROPICAL ISLANDS.

You were kind enough to say that you would be glad to hear from me during my winter's sojourn in these tropical islands. I sent you, some five or six years ago, a short descriptive letter from the Bermudas, and another from Colima, near the west coast of Southern Mexico, both of which were published in the MAGAZINE.

Desirous of avoiding again the rigors of a Northern winter, I determined, for the sake of variety, to visit these more tropical islands, Barbadoes, in about latitude 13°, and set sail from New York, with my wife and daughter, December 20th, in the midst of the "blizzard," which had then struck the city and reduced the temperature to zero. As here the temperature ranges close to 80°, 74° is quite cold weather, the contrast from the day of our departure becomes quite striking. Being delayed by heavy storms soon after leaving, we did not reach mild weather as early as usual, and it was not till the fourth day out that we began to feel the balmy air of the sub-tropics. On the fifth day, Christmas, our awning was spread on deck and flying-fish were seen.

Our steamer touches first at St. Kitts,

then successively at Antigua, Dominica, Martinique, St. Lucia and Barbadoes, going from the latter place to Trinidad. We make our first stop at Barbadoes, but intend to spend a few weeks on our way back at each of the other islands, except St. Lucia.

The view as we anchored at St. Kitts was a very lovely one, the little half-moon bay, really only a roadstead, with the town of Basse Terra, dotted with Palm trees, skirted the shores; Monkey Hill, where some monkeys are still to be found, although much more numerous in other parts of the island, springs up behind it to a height of a thousand feet or more, and to its left the Central mountains attain a height of over four thousand three hundred feet. As the island is quite a small one, the drive around it is thirty miles in length, the mountains are very prominent, and are both grand and picturesque. The Sugar-cane fields are cultivated up the slopes to the precipitous sides of the mountains, and their beautiful shades of light green make a pleasing contrast to the dark greens of the wooded heights above.

To the right of the town, and seeming



TOWN OF CASTRIES, ST. LUCIA.

to form a part of St. Kitts, is the still smaller and nearly circular island of Nevis, six or seven miles in diameter, with a central peak some three thousand six hundred feet high. Numerous excursions can be made from St. Kitts by sail boat to several small and interesting islands within a circuit of twenty or twenty-five miles.

Our next stop was at Antigua, which is a much larger and flatter island, no hills being over one thousand three hundred and thirty feet high; still the country is so broken as to be very picturesque, and the island is more indented with bays and fringed with islets, giving fine opportunities for boating and bathing. In my short visit ashore, preparatory to a longer one on our return, I was shown, by our courteous Consul, some of the gardens, and noticed amongst other things a large tree of the American Gamboge, *Vismia guianensis*, the stems and leaves of which when broken exude a juice of the ordinary gamboge color, though I presume the gamboge of commerce is the resin of an East Indian tree; it has thick, fleshy, pear-shaped leaves, and a large, showy flower, with six white petals lightly tinted with rose, and a light greenish button-like column in the center, the flower being about the diameter of an ordinary tumbler.

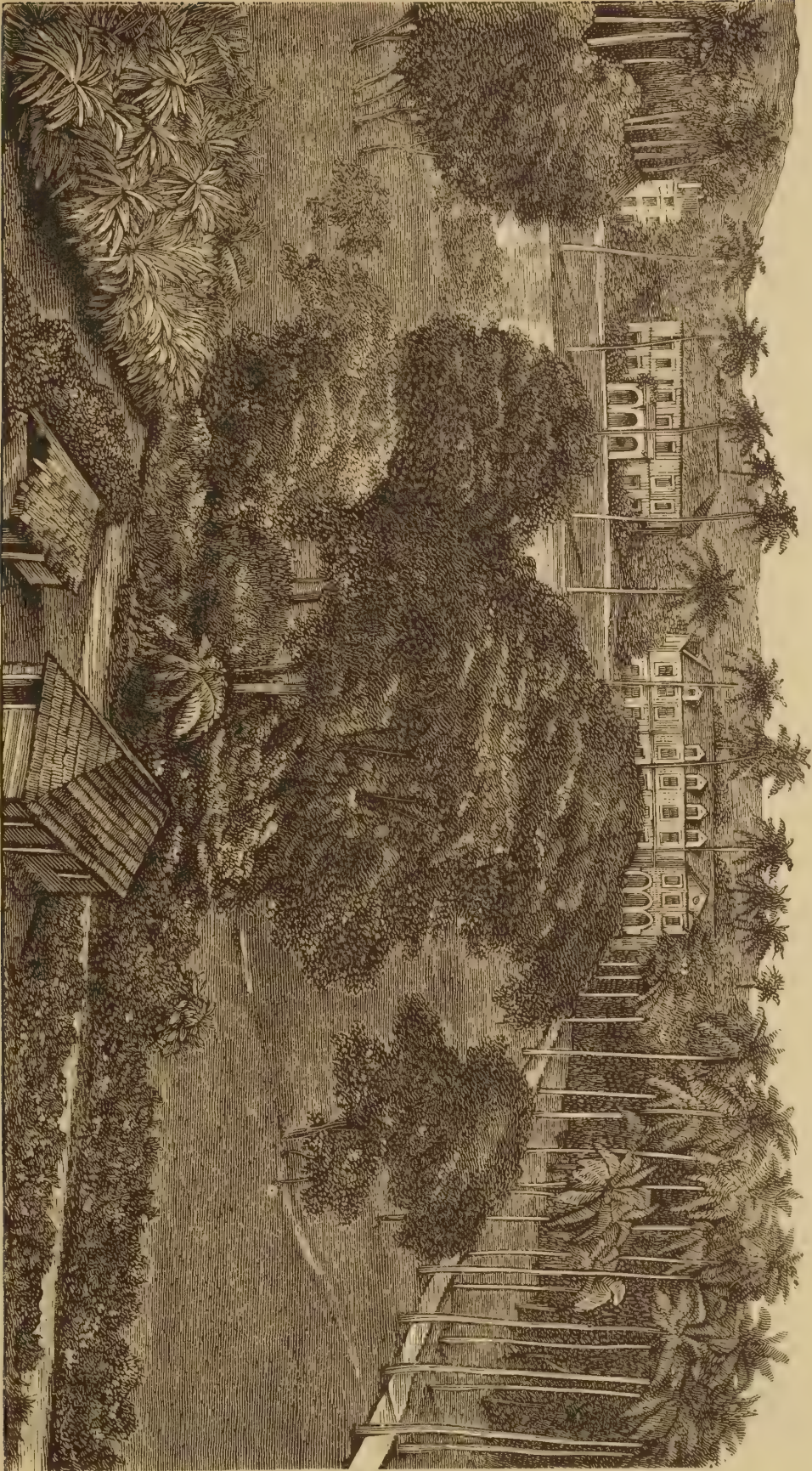
I saw also the Arnatto tree, with its singularly-shaped seed vessels, from whose seeds the coloring matter is obtained to ensure our always having June butter, and which is a great favorite with the cooks on the Spanish Main for making nearly all their dishes of food a dirty orange color. Another interesting sight was the so-called Almond tree, probably not a true Almond, with its bright red flowers. The Date, Cocconut and truly "royal" Cabbage Palm are abundant. One garden which he showed me had only been started a year, and it was astonishing to see the growth of shrubbery, flower and foliage plants that had taken place in that short time.

Dominica and Martinique, especially the former, are *par excellence* the islands of the West Indies for luxuriant native tropical growth, excepting only Trinidad, which, unfortunately, we shall not be able to visit this time. Dominica is said to have a hundred varieties of Ferns, including the Tree Fern, and numerous Or-

chids and other tropical plants. This island having an area of two hundred and seventy square miles, is a mere congerie of mountains, reaching a height of four thousand seven hundred and fifty feet, and Martinique is only less mountainous. As I hope to be able to send you another letter after a stay at each of these islands, I will defer any further account of them.

St. Lucia is, viewed from the sea, probably the most picturesque of them all, and its mountains of three thousand five hundred feet are not to be despised. The shores are much more frequently indented with bays, fringed with Palm trees, and the skirts of the mountains seamed with rugged gorges, whilst the two "*pitons*," a mile apart, separated by a deep bay and with sharp pointed peaks, spring up from the water's edge by precipitous slopes and cliffs to a height of two thousand six hundred to two thousand seven hundred and fifty feet. At the port of Castries, where the steamers stop, I went ashore before breakfast, and, without knowing exactly what I was undertaking, climbed up on foot to the summit of Morne Fortune, some seven hundred and fifty feet above the sea, and the site of the Governor's house, fort, &c. I was pretty well blown and nearly melted with the heat—they call the summit a cool place, as there the mercury falls down to 74° at night, at this time of the year—but well repaid for my trouble with the magnificent views of sea and shore. The little town of Castries is fairly embowered in Palm trees, I send you a photograph, showing the outskirts of the town and the hill with the Government buildings on the summit; and the view of the harbor, the shore and islands beyond, and of the mountains and hills of the interior heaped together in picturesque confusion, was simply enchanting. The views on the way up were nearly equally good. I passed on the way a number of Bread-fruit trees, with their enormous, deeply indented leaves nearly two feet in length by twenty inches in breadth. I was surprised to find it a tree as large as many of our forest trees at home.

Barbadoes is quite a contrast to the other islands from the absence of mountainous character, comparatively speaking, the gentleness of its slopes, and the extent of its cultivated area; there is scarcely any waste land, and as with



CODRINGTON COLLEGE, BARBADOES.

an area of one hundred and sixty-two square miles, it has one hundred and sixty-two thousand inhabitants, it is necessary to cultivate it pretty thoroughly to maintain them all. We enjoy the island, nevertheless, very much; the drives over the splendid coral roads, almost as smooth as the asphalt pavement, in the cool of the morning and evening, are delightful, and at this time of the year, January, the temperature of the sea water is just right for bathing.

The old-fashioned windmills, with their huge, solid stone towers and four long arms, are quite quaint, and the groups of the Cabbage (royal) Palm at every plantation, towering high above everything else, give an air of novelty as well as beauty to the stranger from the North. I send a photograph of Codrington College, showing some of these magnificent Palms.

Numerous fields are to be seen of the Eddoes, or edible Caladiums grown for food, and of the Guinea Corn—of the Chinese Sorghum and Broom Corn family—but bearing an edible grain.

The private gardens are flaming with large Poinsettias, beautiful variegated Caladiums, Crotons, Coleus and other foliage plants. Even the little negro huts have plots in front with choice varieties of Coleus and Croton growing therein.

Trees of the Frangipanni, with its deliciously scented flowers of white or rose color; the Ceiba tree, or Silk Cotton, with its dense light green foliage and massive trunk with its singular buttresses thrown out high above the roots; the Bearded Fig tree, from which the island is said to have obtained its name, given by the Spaniards, *barbados*, bearded, from its roots hanging down from the branches, like a beard, and sometimes striking root and growing into stems, like the Banyan; the *Ficus nitida*, Garden Mangrove, with its exceedingly dense, dark green foliage, spreading sometimes to a diameter of ninety-four feet, all have their interest to one having any botanical tastes.

But the length of my letter and the nearness of time for closing the mail warn me to draw to a close.

Living and livery are very reasonable here, and the completion of the new hotel on the sea shore, with some one hundred and fifty rooms, two miles from the port by horse railway, and the comparative dryness of the climate, although hot, will make it a desirable place for those from the North seeking a warm place to pass the winter. It is called the sanitarium of the West Indies.—J. F. FLAGG.

AN APRIL MIST.

Dawn found it brooding when she came,
Changed her gay mood and quenched her flame,
Stole gently through with lessening ray,
Made it her mantle, cool and gray.

The sky is lost! Nay, all around
The sky hath stooped to wrap the ground,
Lessened the limits of our sense,
With soft and deep environments,

Yet not to imprison; still their grace
Moves, as we move a little space
For light and sight, with promise fond
Of yielding in the veil beyond.

Low, where its dewy garment lies,
How fast the greening grasses rise!

Aloft, within the moisty shroud,
The Elm buds swell a darkening cloud.

And, oh, how is the muffling wall
Pierced sweetly as the song birds call!
Chorus unseen from every side,
Rejoicing that the world is wide!

Still, at those clear, enchanting cries,
The budding, bowery vistas rise!
Vain are ye, cloud-realms, 'round us tost,
When song reveals what sight hath lost—

The skies beyond you bending blue,
The sunlight glittering on the dew—
Chants in your inmost shadowy fold,
Your outer glory's rose and gold.

E. BENNETT.



FOREIGN NOTES.

ROSE MILDEW, SPHÆROTHECA PANNOSA.

11.

Judging by the effect of the fumes of sulphur on the Oidium of the vine, there can be no doubt that Rose mildew could easily be destroyed by sulphur if the fumes could be made to reach the fungus, and if they were applied in the earliest stages of the growth of the fungus—that is, before the spawn threads are woven over the little organs of transpiration, and before the leaves are injured by the piercing of the little suckers from the fungus spawn. When Roses are badly mildewed they may be syringed where practicable with water, soft soap and sulphur—five gallons of cold water, half a

pound of the best soft soap, and a handful or two of flowers of sulphur, the whole to be left for a few hours for the soap to thoroughly dissolve. Two dressings of this mixture will generally remove all traces of the fungus, and green fly too, should it be present. Pure water

perished—not a single Oidium spore can possibly survive the winter. How, then, does this plague of gardeners tide through the frosts of winter and reappear in the following summer? Nature protects the Oidium of Rose mildew from destruction in the following manner:

If the dying Rose leaves of autumn are examined—leaves that have been injured or killed by the mildew—it will be seen with a lens that the spawn threads are here and there dotted over with little black grains. Each grain is so small as to be invisible without a magnifying glass. Under a strong hand-glass the dots look like minute but perfectly round grains of gunpowder. We will now put an autumn leaf fragment under the microscope and magnify 75 diameters. This is only one-half the magnification of fig. 1, and one-quarter of fig. 2. The black dots are now seen as at A, fig. 3; they grow from the spawn threads of the Oidium or mildew. Each dot is a perfect black sphere or round box furnished with radiating brown tentacles or appendages as shown. The use of the appendages to the fungus is uncertain. As each little black globular box is not larger than the point of a needle it may be considered by some as no easy matter to cut one in two and see the nature of the inside. Still, the performance of this feat is quite possible. If many sections are taken with a lancet or razor one or more of these boxes will be seen in section. Such a section is shown at B. It will be noticed that there is a comparatively thick outer coat to the box, made up of minute pieces spliced or dovetailed together. This outer coat, inconceivably fine and thin as it is, is drought proof, frost proof and water proof. Dryness, coldness, or wetness will not injure it or its contents. Within the box, and represented by a single fine line in the section, is a small, transparent, globular bladder, and inside this bladder there are eight neatly and cosily packed oval spores or



FIG. 3.—ROSE MILDEW; ITS AUTUMNAL AND WINTER STATE, ENLARGED 75 DIAMETERS.

to be afterward used. Roses in houses could be easily reached by sulphurous fumes, but this part of the subject we leave to practical and experienced growers. The spores of Rose mildew very soon perish in the air; they cannot withstand dryness, heat, moisture or cold; there is no evidence to show that they can live for more than a day or two at most. Unless they light upon Roses or some allied plants they perish at once. We have shown that nature has provided for this emergency by the constant and repeated production of vast numbers of fresh spores.

When the chilly weather of autumn arrives the mildew has vanished; every spore of the Oidium has collapsed and

seeds of mildew. Nature takes such extreme care for the preservation of her smallest works that she takes all these pains to preserve the spores—always eight in one bladder, each bladder in a circular, air proof box, and all invisible to us without the microscope. The box is termed by botanists a perithecium or conceptacle, or one box which covers another, and the bladder inside is termed an ascus, meaning a sack, bladder or bottle.

The whole apparatus is so neatly and well made and so perfect that the frosts,

leaves will gradually fall into decay, but the mildew boxes or perithecia will not decay.

When the frosty weather of winter has gone and the cold, doubtful weather of early spring has passed away, when the warm sun of early summer begins to shine, nature prepares to set free the spores of Rose mildew. If we take from our garden bed a decayed leaf fragment on which the boxes or perithecia have been borne, and examine it under the microscope in the month of May, we shall probably see it, if enlarged 375 diameters, as shown in fig. 4. The warm sun and warm showers of early summer cause the box to split, as illustrated at A; the bladder containing the eight neatly packed spores or seeds is then expelled through the opening of the box, as seen at B. The thin transparent bladder, or ascus, sails through the air with its tiny load and soon splits either at the side or top, as at C, and the eight little spores or seeds of Rose mildew, after six months' rest inside, at length sail out. They often germinate as they float about in the air, and such spores as fall on Rose trees weave a web of mycelium or spawn, and cause the immediate production of Rose mildew in the club, necklace, or Oidium form first described. A single germinating spore, enlarged 750 diameters is shown at D.

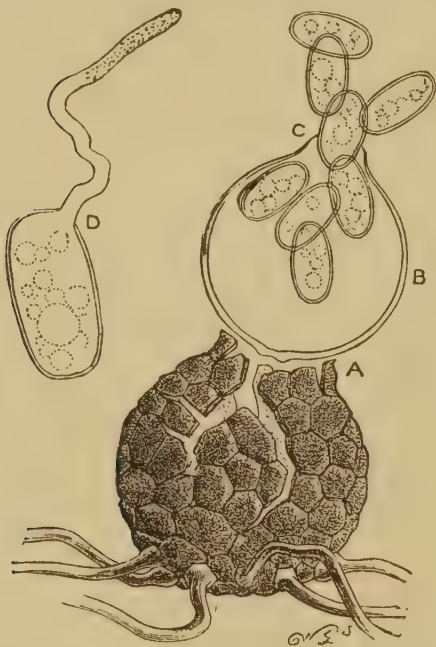


FIG. 4.—ROSE MILDEW; ITS ULTIMATE CONDITION, ENLARGED 375 DIAMETERS, AND A SINGLE GERMINATING SPORE, D, ENLARGED 750 DIAMETERS.

rains and winds of winter have no effect whatever on the eight little mildew spores so snugly packed away. One infected Rose leaf will bear hundreds of these microscopic boxes, each with its bladder inside containing eight spores. This state of the fungus of Rose mildew is the perfect and most complete state; this is the condition named by botanists *Sphærotheca pannosa*, *Lev.* *Sphærotheca* means a round box or case; *pannosa*, we presume, indicates the shrivelling effect of the fungus on the leaves.

If infected Rose leaves are placed on a garden bed in late autumn they may be examined at different times during the winter, and the minute black mildew boxes will always be found uninjured by the vicissitudes of weather. The Rose

It is obvious from this description that the fungus of Rose mildew is preserved during the winter on decaying Rose foliage, that for every infected Rose leaf that is burnt at least one hundred living spores or seeds will be destroyed at the same time. It is, however, impossible to destroy or deeply bury all infected leaves; but, nevertheless, the more decaying material that is either burnt or deeply buried the less spores there must be to invade Roses in the spring.

If all gardeners would agree to one course of clear-headed action the effects of many ailments of plants like Rose mildew would be materially lessened. But if one gardener is intelligent and industrious and another stupid and lazy, the innocent will always continue to suffer with the guilty.

We believe Rose mildew is almost confined in its attacks to Roses, and this makes the pest easier to grapple with.

It has, however, been recorded from the Meadow Sweet (*Spiræa*) and Hop. In other instances, if a mildew is exterminated from one plant it will immediately settle on another, and simply lie in wait until its most approved victim is again open for attack. In the case of Hop mildew, when there are no Hops for the pest to prey upon, the parasite does equally well on Nettles, the Nettle being a close ally of the Hop.

Roses are unusually apt to fungus attacks. There is a *Peronospora* which sets up putrescence in Roses in the style of the Potato fungus on Potatoes; there is the obnoxious orange fungus, *Coleosporium*, and there is the black fungus of the stems, *Dothidea*, as well as many others too numerous to mention on the present occasion.—W. G. SMITH.

REPOTTING LILIES.

In confirmation of Mr. C.'s statement that we often repot Lilies when unnecessary, I may add that, once having some rivalry in the growth of *Lilium auratum*, I planted bulbs in the largest pot I could obtain. The result the first year was good, one stem producing, I think, eleven flowers. I did not turn the bulbs out the second year, but, laying the pot on its side, removed the soil down to the crowns and filled up with rich, fresh compost. The result was very good; one stem was nine and one-half feet high from the rim of the pot, and produced over fifty flowers.—C. J. N., in *The Garden*.

SOUTH OF ENGLAND GARDENING.

The taste for gardening in all its branches has spread of late through all classes from the highest to the lowest; flowers now enter into every phase of public and private life. No meeting of any kind, whether public or private, is considered complete without more or

less of floral decorations. Not only are the conservatories of the wealthy more richly stocked with flowers than formerly, but every villa has its greenhouse, and nearly every mechanic in this locality has his garden frame or miniature glass-house, and those who are not possessed of either have their window plants, or some contrivance whereby they can enjoy a few flowers at all times of the year. Cut flowers are now worn by every one, and they are sent as presents to friends. I see daily, troops of children, too, placing fresh flowers on graves. * * * The use of flowers in doors is not so much a question of means as of taste; our workmen spend their leisure time in tending their flowers, which formerly was spent in less elevating pursuits.—J. G., in *The Garden*.

PLUMOSE ASPARAGUS.

A writer in the *Journal of Horticulture* says: "To my taste there is no comparison between *Adiantum* and the Asparagus—*A. plumosus*—for bouquets, wreaths, and those long graceful flower arrangements now so popular with ladies. A spike of *Odontoglossum crispum*, with a long evenly furnished branch of the Asparagus arranged in such a way as to make each flower appear surrounded with a delicate green shade, is one of the most charming combinations I have ever beheld. Better still, this Asparagus will last a month when cut and placed in water. Considering that plants of it yield an abundance of growths which may be cut and cut again without injuring the health of the plant, and that every little branch when placed in heat will strike root and grow into a plant in about two months, there is no reason why this Asparagus should not be grown by scores in almost every garden. I have never known its use along with flowers to fail in giving delight."



PLEASANT GOSSIP.

WHEN THE ROSES COME.

We have waited through the winter,
And felt the chilly breeze;
We have heard the mournful singing
Of the weird wind through the trees;
But our hearts were never shaken,
Doubt never could benumb
The faith that sees a summer time,
When earth no more is dumb—
When the Roses come.

With loved ones we have parted
In dark days that are gone,
But beneath hope's star of promise
We did not feel alone;
For, we knew our loves were breathing
Heaven's own sweet perfume,
As sure as every garden plant
Shall wear its royal plume,
When the Roses bloom.

Through the darkness of December
We may see the light of June;
The shade completes the picture,
As discord heightens tune;
And when the floods of sunlight
Shall o'er the landscape flow,
'Twill be fairer for the memory
Of winter time and snow,
When the Roses blow.

Then cheer ye, hearts in sorrow;
Shall He hold love's control,
And bring no sun to suffering—
No summer to the soul?
Doth doubt and mystery mingle?
There's faith to reconcile,
A light beyond the cloudy days
May cheer us all the while,
Till the Roses smile.

—WM. LYLE.

INQUIRIES.

The MAGAZINE is a dispenser of knowledge to the ignorant, wisdom to the simple, and fatherly counsel to the thoughtless cultivator of plants; and hoping that answering questions has not become too wearisome, I would propound a few.

Do Clematis seeds, any or all kinds, germinate readily, making strong plants, or are they slow, without being sure, the plants feeble and fussy, many of them "damping off" or dying without any apparent cause? Should they be sown in hot-beds, or pots, or in the open ground? I suppose they make no trouble in professional hands, but would an amateur of no great skill or experience succeed with them?

Are the Forsythias sufficiently hardy to blossom well in a cold, inclement region? I live near the head waters of the Susquehanna, where, owing to the elevation rather than the latitude, the winters are very cold, the mercury sometimes 20° below zero, and has been known to fall as low as 30° and 34°, though not often. The springs are late and frosty, consequently we select the earliest and hardi-

est of fruits, and flowers that are "ironclad." Altheas are not to be depended on, and a friend tried in vain for several years to make a Wistaria bloom. She potted and coaxed it, gave it warm covering and nutritious food, but the ungrateful plant refused the tribute of a blossom. Deutzias do well here, and Weigelas tolerably well, and I am anxious to add some Forsythias, if there is a probability of their blossoming.

Are the Chinese varieties of Magnolia hardy? We have been accustomed to associate the Magnolia with the Sunny South, but if China can furnish us any thing of the kind which is hardy, we will accept it gratefully.

One more question I would ask, in regard to blue Lilacs. Are there blue varieties, or are they lilac Lilacs, after all? One, with a "coerulea" attached to its name, is described as a "clear blue." I have never seen one, and would like to know how blue it is. Truly, the agent of the nurseryman is sometimes "peculiar," "for ways that are dark and tricks that are vain;" but I would not lose faith in the nurseryman himself, or his printed catalogues, with their beautiful illustrations and enticing descriptions.

Unless you advise me to the contrary, I shall indulge in visions of golden bells, blue Lilacs, and old buildings made beautiful by Clematis vines.—N., *West Oneonta, N. Y.*

Clematis seeds have a hard outer coat, and require to be kept moist for a considerable time before germinating. It is best to sow the seeds in the fall in a cold-frame, or in a well prepared bed. If seeds are sown in spring it should be as early as possible, or, in order to save trouble in weeding before the plants appear above ground, it is a good plan to mix the seed with moist sand, and keep it moist and warm until signs of germination appear, and then sow it. When the plants are up provide them with water as needed, and they will make a fair growth without any particular attention.

Forsythias sometimes have the ends of their shoots injured by frost, while the older and well ripened wood escapes. We think in the region mentioned they would usually bloom, and they are worth the trial.

The Chinese varieties of Magnolia are hardy in this locality, where the temperature sometimes, for a short term, drops to 20°, and even lower.

The variety of Lilac referred to, we suppose to be the seedling of ELLWANGER & BARRY, *Syringa vulgaris coerulea*

superba, which is described as "light purple in bud, but when fully open a clear blue; truss very large. One of the best varieties." Now, as our inquirer says, that he "would not lose faith in the nurseryman himself," and as we have not lost faith in the nurserymen, we should be willing to take the above description for exactly what it states. Transactions with this firm for a third of a century have given us an abiding faith in them. We think the *esprit de corps* of the best nurserymen and seedsmen of this country is very near the ideal standard of business conduct; but we are sorry to say that there are not a few engaged in these trades that bring dishonor to them.

A PROLIFIC CARNATION.

Last summer, I had, in my estimation, a remarkable Carnation, one that I raised from the seed. It was the first season it flowered, having been out in the garden the winter before, and was only protected with a few weeds thrown over it, and the snow. In the spring it looked quite vigorous, and soon ran up to bud. We counted the buds, and at one time they numbered three hundred and forty-seven, and how many more buds there were during the season I do not know, as it continued to flower until the frost came.

When it was in full bloom it was very beautiful, the color was cardinal red slightly flecked with white. I arranged a basket of flowers for a friend, in which the Carnation blooms were the chief beauty. By the way, it is a great pleasure for me to share my flowers with my friends, and I never can understand how people can be so selfish as to refuse to cut a few flowers to give away.

As I said, I arranged a basket of flowers; the basket was filled with damp saw-dust and edged with green, it was quite a large basket, twelve inches by nine inches, and it took a quantity of flowers to fill it, the one-half was solid Carnations and the other half was solid Pansies, and it was certainly very beautiful, and was a new idea in the way of arranging a basket.

The spot where the Carnation grew was between two Pear trees that were about twelve years old, so that it was somewhat shaded, and in the spring the ground was slightly spread with manure and spaded up. A few years before, on

the same spot, I had another Carnation that I also left out during the winter, and it lived and had, at one time, one hundred and eighty buds, and was the admiration and wonder of many of my friends.—E. W. L.

ROSES IN THE HOUSE.

After a six years' experience of Rose culture in the house with great success, I will give my treatment of the Tea Rose. In fall I repot my Roses in good rich earth, one-third well rotted barnyard manure, in two-quart common earthen jars. Cut them well back and water. Then place them in a room, up stairs, with an east window, heated by a hall coal stove, never exceeding 50°; every fine day leave window open. When buds commence to show themselves, give them a good drenching with warm water, first turning the dirt from the edge of the jar, and putting a teaspoonful of commercial fertilizer all round. Do not water again for three or four days. I repeat this three times during winter, and have always lovely buds, blossoms and foliage, which is beautiful in itself. Have no insects till April or May, when there are a few aphides.

In June, cut back again, and place in a rich border, where they blossom till I take them in. I have only lost two plants in six years; do not remember the names of the varieties, but will give the colors: white, pale yellow, golden yellow, carmine and buff, yellow tinged with rose and pink.—MRS. T. B., Clayton, N. Y.

FLOWERS OF ITALY.

The following extract from a letter, lately received, from one of our subscribers, a gentleman residing in Genoa, Italy, will be interesting to many readers:

I shall endeavor to send you some *Sisyrinchium* after the flowering season is over, about June, as it would do them an injury to dig them up now. I am certain you will like them; we have a whole hillside covered with them here. We are very rich in beautiful wild flowers around Genoa. There are over two thousand five hundred known varieties, some of them quite specialties of the place. There are thirty-two varieties of Orchids, and the *Narcissus* family prevails. In May, about three hours from town, there are acres of the beautiful *Narcissus Poeticus* in flower, one sheet of white, which perfumes the air. I will also send you some bulbs of the *Orchis fusca*, which is a beautiful Orchid, growing sometimes as high as three or four feet, with large heads of brown flowers richly dotted with purple. It would take a volume to describe all the flowers that we can boast of.

NOTES FROM CALIFORNIA.

I have carefully and attentively read your observations of the season with much satisfaction. On this coast we have not escaped the vicissitudes attendant upon the unusual meteorological extremes.

Last year I should have had a valuable crop of fruit, but during the blossoming season there was a chilling, drenching rain storm which prevented the flight of insects, and literally drowned the flowers, so that they did not fertilize. Lower down the mountain, where the trees bloomed before the said storm, the crops were very fair. Still, I know that this is, under ordinary conditions, quite as good a fruit district, and as sure on an average.

In the December number, W. H. WADINGTON speaks of the worthlessness of mountain lands that cannot be irrigated. That will not apply here, nor in most regions of this State. Our best fruit lands are mountain and elevated lands, which are never artificially irrigated. Good cultivation is all that is necessary to retain the moisture which fills the ground in winter and spring. The soil itself makes a good and sufficient mulching by stirring it up lightly on the surface after the rainy season, to a depth of four to eight inches, according to exposure to sun and winds, etc. I could tell you a good deal about how our best cultivators do with complete success, under various conditions. We have a society of horticulturists here.—S. HARRIS HERRING, *Los Gatos, Cal.*

WILD FLOWERS OF NEBRASKA.

I send you a few wild Peas; I think they should be planted very early, as they sow themselves in summer. In June, of last year, I found nearly an acre of them in blossom, and they were beautiful. I find Bittersweet, Golden Coreopsis, Snow-on-the-Mountain, Woodbine or Morning Glory, the flowers being the same shape as the cultivated Morning Glory, and all are of a pinkish white shade. I found Buttercups, last summer, that were pink and white, about as large as an old fashioned cent. There are two kinds of Cactus here, one has a flower like a Rose, bright yellow, very handsome, the other has a flower in shape like an Aster, grows close to the plant, which is shaped like an Apple, but they are

awfully full of thorns and thistles. Oxalis, pink, grows wild; it has a sort of a bulb for a root. Single Sunflowers grow everywhere the ground is loosened; they are very bright and pretty and make quite a fine shade along the roads. Foxglove is another flower I found growing here, the blossom is of a lilac color, equally as large as the cultivated. Roses grow everywhere, but I have not found any but the single shrub, no climbers.—MRS. L. L. F., *West Union, Neb.*

STRAY NOTES.

In Stella Ray's Journal she mentions having seen the statement that there are one hundred and fifty references to different plants in LONGFELLOW'S *Evangeline*, and says she will count them and see for herself. I send the list I have made, and would like to compare notes with her and others.* Besides these there are many references to gardens, orchards, fields and meadows, fruit trees and forest trees.

Would any of your subscribers like to exchange botanical specimens with me? I will be glad to have specimens from other States, and will send to those who will write me what they would like, and what they have for exchange. *Parnassia Caroliniana* grows within a few miles of the city, but not in abundance. I have gathered it only once or twice, but have had it brought to class by my scholars.

My bay window is a thing of beauty, with Callas, Geraniums, Marguerites and Smilax in bloom. I am proud of it because it has had no care beyond water when necessary, and an occasional sprinkle. It is in my bed-room, and I have only single windows, no outside blinds, and only a small stove, which runs very low when I am not in the room. I think they grow because I love them so.—SUSAN M. WILLIAMSON, *Madison, Wis.*

* Hemlock, Moss, Berry, Thorn, Hyssop, Woodbine, Plane Tree, Hollyhocks, Clover, Forget-Me-Not, Kelp, Sea Weed, Cotton Tree, China Tree, Citron, Mimosa, Water Lilies, Lotus, Magnolia, Trumpet Flower, Palmetto, Mistletoe, Purple Amorphia, Compass Plant, Asphodel, Peach, Chestnut, Apple, Evergreens and Gourd, are each once mentioned. Pine, Corn, Orange, Cypress and Tobacco, are each mentioned twice. Sycamore, Cedar, Willow, Grass, Flax and Maize are each three times mentioned. Roses, Grapes, Spanish Moss, are mentioned four times each. The Oak is mentioned ten times.



Good morning, sweet April,
So winsome and shy,
With a smile on your lip
And a tear in your eye.
There are pretty Hepaticas
Hid in your hair,
And bonnie blue Violets
Clustering there.

The Spring Beauties wake for
The girls and the boys,
And earth groweth green
Without bustle or noise;
From tiny brown buds,
Wrapped fold upon fold,
The loveliest garlands
Will soon be unrolled.

The pretty white catkins
Are soft to the touch,
And Alders, we loved them
In childhood so much;
While bending above them,
On yonder hillside,
The Dogwood is dressed
As a beautiful bride.

Ah! welcome, sweet April,
Whose feet on the hills,
Have walked down the valleys
And crossed o'er the rills;
The pearls that you bring us
Are dews and warm showers,
And the hem of your garments
Is brodered with flowers.

We will joy in your brightness,
And drink in your light,
And join in the carols
Of birds, as we write;
For the brown of the old
Clasps hands with the new,
Then slips 'neath the fold
Of an emerald hue.

—MRS. M. J. SMITH.

SEED-GROWING AND SAVING.

The opening article of the January number was seasonable, and contained some sound advice, but it failed to touch upon a class who require some plain talking to, and possibly the editor was withheld by a sense of delicacy from speaking out in meeting on the subject. I refer to those who very seldom expend any money on their garden, who boast that they grow all their own seeds, and yet who wonder that they never have so good gardens as their neighbors. I recollect a remark of the late large-hearted founder of the MAGAZINE when making favorable mention of some plants which he had for sale, to the effect that where there was a greenhouse he strongly advised his readers to patronize their local florist. The advise may have been

good, but while florists who grow plants for sale are as numerous as mosquitos, reliable seed-growers are few and far between, and no one who desires to have a garden that will satisfy even the average lover of flowers, can expect to make it with home saved seeds. Some will deem this nonsense, and will invoke the name of nature; flowers, they say, in a state of nature, do not have a professional florist to fuss over them. Very true, my friend, but are you content with such flowers as you find in state of nature? You admire your neighbor's garden, and wonder why he can't save his own seeds and cut down his seed bills; but many of his flowers, while they bloom profusely, will not ripen the seed under the climatic conditions of the locality. They

are the result of careful study and assiduous cultivation; their tendencies have been watched, and their good ones fostered, the best specimens have been selected, cross-fertilization has improved upon nature, and the survival of the fittest has been rigidly enforced. Have you the time, skill and patience to do all this? If your pride in self-grown seeds arises from genuine enthusiasm, go ahead, and you must, in some measure, achieve success; but if you expect to enjoy the fruits of the education, labor and capital which have so improved even the most common flowers, without contributing your share of the interest thereon, you make a woful mistake. I did intend to say something about that modern delusion, commission seeds, but I fear that I have already exhausted the limits.

In conclusion, let me say that, while your experience will have taught you the kinds that do succeed under home treatment in your several localities, there are some with which it would be folly to persevere. For these give some reliable seed-grower a trial.—R. CALVERT, *La Crosse, Wis.*

GLADIOLUS INNOCENCE.

The *Floral Cabinet* notices our description of Gladiolus Innocence, and remarks: "We beg to differ with them as to the fact as to its being the first pure white variety ever seen. It is probably the first they have ever seen, but had they visited one of the Long Island Gladioli farms during the flowering season of the past three years, they would have come to a different conclusion." Doubtless, we should not have arrived at a different conclusion. We expressly stated that "for a long time it has been understood that the term white applies to those varieties of the Gladiolus that have but light pencilings of color at the lower part of the flowers." Many such varieties have been produced in numerous places, and it is unnecessary to inform the public that they have been raised on Long Island. We also distinctly stated in our description that "by looking directly down into the flower some dark spots may be perceived at the base." These spots will not be noticed except by making a special effort to see them; as ordinarily viewed no color can be seen, and as was stated, "practically, this

flower is a pure white." It is too late to make the claim now for Long Island; there is little doubt that the world would have heard of it if any variety equal to Innocence could have been shown.

The description of this Gladiolus seems to have stirred up a little feeling in different quarters. The *Rural New-Yorker* notices it, and remarks that "the *Rural* editor was among the first to import the improved Gladioli fifteen years ago." What is there strange or meritorious in this, or what value is it as a piece of news? The writer knows a number of persons that did the same thing, himself among the rest, but surely that is of no interest to the public. The same editor finally remarks: "An entirely white Gladiolus flower is valuable only for its novelty." This is wonderful, in fact, too absurd to be answered "according to its folly." Why should we, dear friends, dip our pens in gall, who have so peaceful interests to promote?

We have no fear that "Innocence" will suffer however much it may be maligned.

GRAPE HYACINTHS.

Driving two or three miles down the valley, north of Dansville, N. Y., early in May, last year, my attention was attracted by a remarkable patch of color in a low meadow, some distance in advance. It appeared most like a dark blue reflection from rippled water, but as I have never known any water in that locality, and had never seen anything resembling the phenomenon, I was at a loss to account for it. Passing it at a distance of some rods, I concluded it must be flowers, but could not imagine what sort, so entirely new, had so suddenly sprung up.

On my return, I alighted and went to the spot, and found several acres thickly covered with a flourishing growth of Blue Grape Hyacinths, much taller and with larger blossoms than are usually seen in gardens. Bees were humming about, and children were rolling among them. I gathered until my hands could hold no more. Inquiring at the farm house nearest, I was informed that one or two little plants were observed in that meadow two years before, and from them apparently all this array has sprung. It must mean that this meadow soil is specially adapted to the growth of this bulb, and perhaps of other bulbs.—F. B. J.

NEW VARIETIES OF POTATOES.

I obtained Vick's Extra Early, Vick's Prize and Chicago Market Potatoes the last of March, last year. I planted them the 7th day of May. The soil was good and was thoroughly cultivated. Some hills of the Extra Early and Chicago Market were up the fifth day from planting, or the 12th of May. On the 14th, or the seventh day, most of them were up.

Of Vick's Extra Early I planted a half pound; the two Potatoes I cut into sixteen pieces, and planted one piece in a hill, and the hills twenty inches apart. I dug in the summer sixty-three pounds of the most beautiful Potatoes, scarcely any small ones, none in most of the hills.

Vick's Prize did not give as satisfactory results. Of this variety I planted one pound cut into twenty-seven pieces, and planted as above. I had a luxuriant growth of top, and a yield of one hundred and fifty-six pounds, or two bushels and six pounds, and the moles had taken three hills and a part of a fourth. There were a good many small ones, and the large ones were grown over with knots. The season was pretty moist, and the ground probably too rich.

Of the Chicago Market I had one pound of seed, which I cut into forty pieces, making that number of hills. I dug of this kind one hundred and seventy-three pounds, or seven pounds less than three bushels, and the moles took one hill and part of another. There were also very few small ones, most hills had none, and but few of the tubers had knots on them.

From the two and a half pounds of seed obtained, last year, I have three hundred and ninety-two pounds, or a little more than six and a half bushels of seed for the present season. The Extra Early I will plant earlier this season, though, as I shall plant for seed, I shall want my ground to be in the very best condition.—T. J. WILSON, *Halsey, Oregon.*

WARM OR COLD WATER.

Plants growing in a stove, or hot-house, temperature require careful watering with water near the temperature of the house, but lightly syringing the foliage with cold water I have never found to be injurious, to the contrary, I think it practically beneficial. Young plants newly potted from the bench should never be

watered or syringed with cold water, but rather above the temperature of the house; if cold it always retards their progress, and renders them liable to attacks of insects. I cannot think that water taken from the connection or well would have an evil effect on the growth of well established house or window plants. I have had opportunities to notice such plants as Geraniums, Fuchsias, Ivies, Amaryllis; even Primulas, full grown, which are at best a little difficult to manage, do well with cold water. It always keeps the soil sweet, whereas, warm water, with ordinary potting soil, and the plants kept somewhat close, as window plants usually are, will cause a white crust to form around the rim and surface of the pot, and ultimately bring death to the plant.—J. HUNTER.

IS IT A NOVELTY!

I see that some florists are sending out as a novelty, this spring, the Pink "Mrs. Sinkins" under the name of "Snow." I do not think it right to tack a new name on a plant already named, thoroughly tested, and sent out several years ago by English florists. This Pink was imported several years ago, and placed in my hands for propagation; it bloomed in 1883 and 1884. In 1883 it appeared to be inferior, consequently we did not propagate it that season, but decided to give it another year's trial. Last year, it quite surpassed any thing I had ever seen in the line of White Pinks. It is of strong growth, medium height, free bloomer, and of a pure white color. The flowers burst the calyx, but each flower is so double that it holds well together, so that bursting is nothing against it.—FRED.

WOODRUFF RED GRAPE.

A seedling vine from Concord, produced in 1874, by C. H. WOODRUFF, has acquired a local celebrity, and is now put on the market by E. H. SCOTT, of Ann Arbor, Michigan. The vine is said to be a stronger grower than Concord, and quite hardy, having large, thick, leathery leaves. Fruit ripening early, of a reddish color, and large both in bunch and berry, of fair quality, but becoming better with age, and keeping well through the winter. Those who know most of it think it will be exceedingly valuable as a market variety.

TRILLIUM GRANDIFLORUM.

I have been glad to see, from time to time, in the *MAGAZINE*, some notice taken of our native flowering plants and Ferns. I have not been situated so as to be able to devote a border to their cultivation out of doors, but as I think the advice of PAUL to TIMOTHY is equally good for preacher and horticulturist, I have endeavored to be both "in season and out of season" in regard to a few native plants, especially *Trillium grandiflorum* and *Cypripedium pubescens*. These I have had the two past seasons, growing in pots. They have simply been allowed to go very gradually to rest in a half-shady place after blooming, and then



TRILLIUM GRANDIFLORUM.

kept from drying out until frost comes, when I put them where they will not be frozen enough to break the pots until the first or second week in January. I have then gradually introduced them into heat, and have both *Trilliums* and *Cypripediums* in full bloom at Easter the past two years, and have a prospect of their doing so this season, by present appearances.

I have also a pot of *Caltha palustris* promising well, and last year had one of *Trientalis Americana*, which is a little gem in a pot; but from some cause, too much heat, I believe, the root perished in the greenhouse after going to rest, which probably would have been prevented by placing the pot in a shady, damp place out of doors.

The cut shows a plant of *Trillium* which had seven blossoms at one time.

In sketching the plant I purposely left out some to avoid crowding.—J. BISHOP.

WARM OR COLD WATER.

Being a subscriber, and having read an article in the January number of your *MAGAZINE*, headed "Warm or Cold Water," I thought I would give my experience through its columns, as you request of its readers. I have grown quite a variety of plants in pots in, and out of, the house, and have been very careful to note their growth under different circumstances. I was very much surprised to learn that *Henderson's Practical Floriculture* expressed the opinion that the use of cold water, or water so many degrees below the temperature of the greenhouse, was not injurious to growing plants. My experience has been the reverse, and I agree with you exactly when you say that plants with warm water will make a far more vigorous growth than those given cold water, other conditions being the same. Water a few degrees warmer than the temperature seems to be best.—W. R. M., *Kelley's Island, Ohio*.

GARDENING ENTERPRISE.

One of the finest private horticultural establishments in Western New York is that of our fellow townsman, W. S. KIMBALL. Although the grounds of his handsome residence are large for their position, that of somewhat close proximity to the busy portion of the town, they are not sufficiently ample for the range of structures necessary for the gardening purposes for which they are designed, consequently a plat of ground nearer the suburbs is used for this purpose. The home grounds are finely planted with trees and shrubs, and a beautiful display of flowers is made during the fine season. A large conservatory close by the house affords the opportunity for the frequent enjoyment by the family of blooming plants. But the range of buildings referred to is a large one, and when fully completed will consist of a large show house, or greenhouse, a propagating house, an Orchid house of large size with several apartments, a Rose house, and a Lily house fitted up especially for Water Lilies, *Nymphæas*, *Nelumbiums*, *Victoria Regia*, the Great Water Lily, and a central

building for an office and work room. The Lily house and the show house are not yet wholly constructed, but will be finished in a few months. The place is in charge of Mr. GEORGE SAVAGE, formerly with Mr. GEORGE SUCH, of South Amboy, New Jersey, and in making this statement many of our readers will understand without further explanation that it could not be entrusted to safer hands. The Orchid house is already a place of bewildering beauty, and is stocked with a wonderful variety of the most valuable Orchids, of many kinds of tropical Sarracenias, or Pitcher Plants, and tropical Aroids, Palms and Ferns. At the time of our visit to the place, a short time since, the display of blooming Orchids furnished a great treat, but no words can do justice to the surprising beauty of these flowers. Only the skill of the painter can assist the mind to form a conception of the rare, unique and graceful forms and exquisite colors that in them are united and displayed.

After returning from this almost fairy-like scene, we improved the occasion, while the mental image was still vivid, to examine carefully the plates of Orchids in the valuable work, *Orchids, The Royal Family of Plants*, noticed briefly in a former number. It was a satisfaction to find that these plates did not lose in effect or appear inferior after seeing the flowers themselves. Those who have not the opportunity to see these rare plants may yet have a very fair conception of their beauty through the medium of this beautiful volume, published by LEE & SHEPARD, of Boston, Massachusetts.

BERMUDA.

“ ‘Onions are up, to-day,’ which cabalistic sentence means they are bringing a good price; and from Heyl’s Corner, near which is the American Consulate, the scene is a gay and busy one, and the air is filled with the odor of Bermuda Violets. A Rose by any other name may smell as sweet, but our olfactory nerves fail to perceive that calling an Onion a Violet makes its pungent odor any more delectable. Donkeys, horses, negroes of every age, size and shade, carts, crates, sacks, barrels and boxes, are mingled in seemingly inextricable confusion, and laughter and hilarity abound.” Such is the description of the wharf scene in Ber-

muda, on a shipping day, in the Onion season, in that charmingly written book of Mrs. JULIA C. R. DORR, *Bermuda, An Idyl of the Summer Islands*. Our space will not now admit of more extended extracts, though hereafter we shall transfer to our pages from this source a few descriptions of scenery in Bermuda. In the meantime let those of our readers who enjoy descriptive writings of a country where the climate is almost a perpetual summer, procure this volume, which is published by CHARLES SCRIBNER’S SONS, of New York, at one dollar, and feast upon its contents. As Bermuda is only three or four days’ ride from New York, it is quite accessible as a winter resort, and many will, no doubt, be doubly interested in these agreeable writings on this account.

EXTRA TROPICAL PLANTS.

GEORGE S. DAVIS, Medical Publisher of Detroit, Michigan, has republished the valuable treatise of Baron von MUELLER, entitled, *Select Extra Tropical Plants readily eligible for industrial culture or naturalization; with indications of their native countries and some of their uses*. It is an octavo volume of 450 pages. Containing, as it does, exact accounts and descriptions of the most valuable trees and plants for profitable cultivation, it cannot fail to be of great assistance to enterprising cultivators. It should especially find a place in the library of every agricultural and horticultural society, and of every educational establishment. The work is one of great research, and brings together, in compact form, the industrial plants of the whole vegetable kingdom. It is sold at three dollars.

SPRING IN GEORGIA.

A correspondent of Columbus, Georgia, under date of March 2, writes as follows of the weather: “We have had the latest and coldest spring, this season, I ever remember here. February is our gardening month, but those that made garden then lost it all by the late freeze. I very much fear, from our winter, that you have had some terrible weather.”

OUR SUBSCRIBERS.—The hard times have not prevented our subscribers from renewing; we hope they will make a little effort to add their neighbors’ names.

PORTULACAS UNTIL CHRISTMAS.

From a paper of mixed seed of Portulaca, I received last spring, I had flowers of almost every shade of all the colors, except blue, to the purest white, and double as Roses. They were the envy and admiration of all my neighbors, and I was so frequently asked for seeds and cuttings that I almost became "weary in well doing," for I dispensed cuttings so freely that I nearly spoiled my bed. I had not the least idea the cuttings would grow, but they did, and filled pots and boxes, and bloomed almost until Christmas; so my neighbors had Portulacas long after mine were all spent.—MRS. J. V. R., *Columbus, Ga.*

OUR ARTIST IN VIRGINIA.

There are many fine mansions in this and adjoining counties, most of them built after the fashion of an English manor house of a hundred years ago, and like them are very substantial and solid, even when built of wood. There are several such buildings and churches within fifty miles of us, the bricks of which were brought from England, the mechanics were English, and hence these structures, in many cases, are in a fine state of preservation.

Chester, some twenty-five miles from this place, is a mansion of this order, large, roomy, solid, with every convenience in the way of good cellars, closets, pantries and store-rooms, the wood-work neatly finished and painted; and a splendid lawn of two or three acres surrounds the house, upon which are to be seen some of the finest Oaks in the country. This property contains six hundred acres of wood land and clearing, and deer and other game are plentiful. Strange to say, this delightful

residence is not occupied, except for a month or two in the shooting season, when the owner, a gentleman in Boston, and a few friends come down for a vacation. The place is in the keeping of a faithful old negro and his wife, "Aunt Rose," who live in a cottage near by, and who lived there many years prior to the war.

In walking around the grounds I noticed some of the best growth of Corn yet seen in the neighborhood. "Aunt Rose, where did you get your phosphate to raise such a crop as that?"

"Dun'no nothin' 'bout fufate, sir; planted dat ar Corn m'self, and it grow'd so."

"Well, you must have had a hard time digging up all that patch."

"Yahs, sir; ole Bill and me, we dun it."

"You mean your husband, I suppose."

"Oh laws, no, sir," and with a low, chuckling laugh the old dame left us.

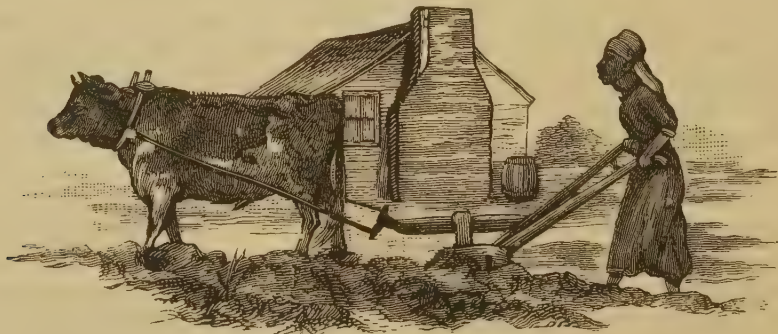
When returning, a few hours later, I found "Aunt Rose" managing a very primitive plow, with old Bill, a fine steer, in the harness, and together they were turning up the soil preparatory to spring planting. As I stood watching the pair, the old lady said:

"Dis am de crittur, sir, 'luded to as 'ole Bill,' but he am gettin' ole and lazy, don't care to move 'long more'n he kin help, sir; he used to be right smart, poor ole Bill."

"How old is he, Aunt Rose?"

"Twenty years, sir; tink I shall jes' put in dis one more crap, sir, and den beef 'im."

And so I left Aunt Rose and old Bill, putting in the last "crap," and the last words I heard from Aunt Rose, herself near sixty, was, "G'won dar, you ole Bill."—J. W., *Claremont, Va.*



G'WON DAR, YOU OLE BILL.

OUR YOUNG PEOPLE.

LITTLE ENGLISH GARDENERS.

II.

We used to make tiny houses with sticks, thatched with rushes and lined with moss, on a green bank in the meadow, and we laid out little gardens with little plots of earth collected from the mole hills, and planted flowers and made sanded walks in front of them, and adorned them with colored snail shells, which we found of all colors on the dry bank. The shape of our houses was like Indian wigwams, only we had no pattern or picture of Indian huts as guides for our buildings, and these playhouses were for our dolls. I must tell you that our parents never bought us toys, we made all our playthings ourselves. If we said we could not make any thing, our father said "try," and if we did not succeed, it was "try again," and "try till you overcome the difficulty." That was part of the teaching which we got. If he found we were in earnest he would then help us, or direct us, but he wished us to use our own reason and the powers which we possessed ourselves.

We made rag dolls and cut out clothes for them, and made the dolls ourselves, and paper dolls, and trees, and houses and animals in paper. My sister, AGNES, was very skillful with her needle and scissors; she worked the dresses for our dolls, and cut paper beautifully. She had quite an artistic talent in that way. ELIZABETH, our oldest sister, taught herself to draw and paint from nature. She became quite an accomplished artist in time. She never would take lessons, she determined to succeed by perseverance, and she did so. She began by copying leaves and simple flowers from nature. When our father found that she possessed taste and a talent for drawing, he bought her a well fitted up drawing box and card and pencils.

We were early taught to read, and we loved books, but the books that children had then were few, and not like the gay pictured and finely bound books that are now so common with little folks. Ours were in dull binding and on coarser

paper, with queer wood cuts. Sandford and Merton, Berquin's Children's Friend, the Arabian Nights, with all sorts of fairy tales, were the only amusing books we had access to, only there were many books for older heads, and these we read, such as Shakespeare's plays, and many of the older poetical works and histories.

We had the afternoons for walking; when it was fine the nurse took us out, she carrying the baby, and often she let us ramble away while she staid gossiping with some of her friends. We were glad when this happened, and we could leave the dusty road and wander away and pluck wild flowers, or feast on ripe Blackberries, or sit gypsy fashion under some tree or hedgerow, and listen to the stories that our elder sisters would tell to amuse themselves and the younger ones.

About a quarter of a mile from our house was a romantic shady little lane, with a high sloping green bank on one side, and a bright little rill of pure spring water on the other. On the banks of this little stream grew sweet Violets and Primroses, and wild Strawberries, just touching the sparkling water. There were Sweet Briar Roses and Honey-suckles that filled the air with perfume. This little lane was our paradise, our garden of Eden, and in it we laid out and planted a garden for ourselves, no one interfering with us; it was only a narrow bridle-path enclosed between the banks and high hedges, and leading to the "uplands," the private grounds of a gentleman who was an occasional visitor at Stowe House, so he did not interfere with or prevent our work. Like Canadian squatters, we took to ourselves right of soil, and made a free settlement, *sans cérémonie*.

Our wild garden was laid out right daintily; a sort of arched grotto which a recess in the green bank afforded, was lined with green mosses and overshadowed with Woodbine, which was twisted over the top, bower fashion. We laid

out paths, and sanded them neatly and planted small beds with such flowers as Sweet Williams, Polyanthus and double Violets, and we set rows of bulbs, such as Crocuses, Daffodils and Snowdrop, and borders of double Daisies, gave the finish to these little beds. Our tools were, in truth, very rude ones; our trowel was an old broken carving knife and a rusty iron ladle, while our watering pot was a leaky Japan mug and a battered tin tea pot. We worked with great zeal. The elder ones, the eldest was thirteen, making the more important arrangements in laying out the ground, and we three younger children doing their bidding, gathering the moss and bringing the sand, and waiting upon the head workers very dutifully. When off work we dabbled in the little rill of water, drinking out of the hollow of our hands, I am sure not of the cleanest, or sipping the bright drops in Acorn cups, fairy-fashion, or skipping across its narrow channel.

In spite of the rude implements made use of, the plants grew and flourished and bloomed, year after year, in our wilderness garden; and there, sheltered among the bowery Honeysuckles and wild Roses, our happy little party sat or reclined on the turfy bank, listening to poems and tales from history read or recited by our older sisters, ELIZABETH and AGNES.

Their juvenile auditors little thought of the fame that these remarkable sisters acquired in after years, by their talents as historians of England's Queens. Even then, young as they were, the taste for historic literature had been formed, which was developed in after years. Possibly, had they been differently educated, brought up among other companions, indulged with luxuries and less strictly controlled, they would not have sought their pleasures in books of a higher class, or in the natural objects that so delighted them.

After we left the banks of the Waveney, many years passed away before I revisited the beloved home and scenes of my early, happy childhood. A few Crocuses and Snowdrops, choked and dwarfed with the long grass or weeds, were the only flowers that remained "to mark where a garden had been." I stopped and drank, as in olden time, a few bright drops of the crystal water from the hollow of my hand, and picked a nosegay of the sweet blue Violets, as a memento of the haunts of my childhood; and often, in after years, have my thoughts strayed back to my first home on the green banks of that sweet stream,

"Where, in childhood, I played,
And plucked the wild flowers that hung over its
wave."

—MRS. C. P. TRAILL.

AMONG THE PINES.

III.

In the well-managed lumber camp, everything moves with the regularity of clock-work. There is system in every department. There are the choppers; it is their business to cut down the trees, and trim off the limbs as far as the trees are large enough to cut into logs.

Then come the sawyers; they measure off the fallen trees in lengths, twelve, fourteen, sixteen, and eighteen feet, and saw them into logs ready for the loaders. Sometimes a tree breaks in falling, so that logs of special lengths have to be cut, in order to save as much timber as possible. Until late years, much valuable timber has been wasted, but the supply of Pine is decreasing so rapidly, that now, everything which has any value in it is used. The small trees, which are generally very tall and straight, are cut

for boom-sticks, the use of which will be explained farther on, and are not measured into logs, as the pines are, but are "banked" in one length.

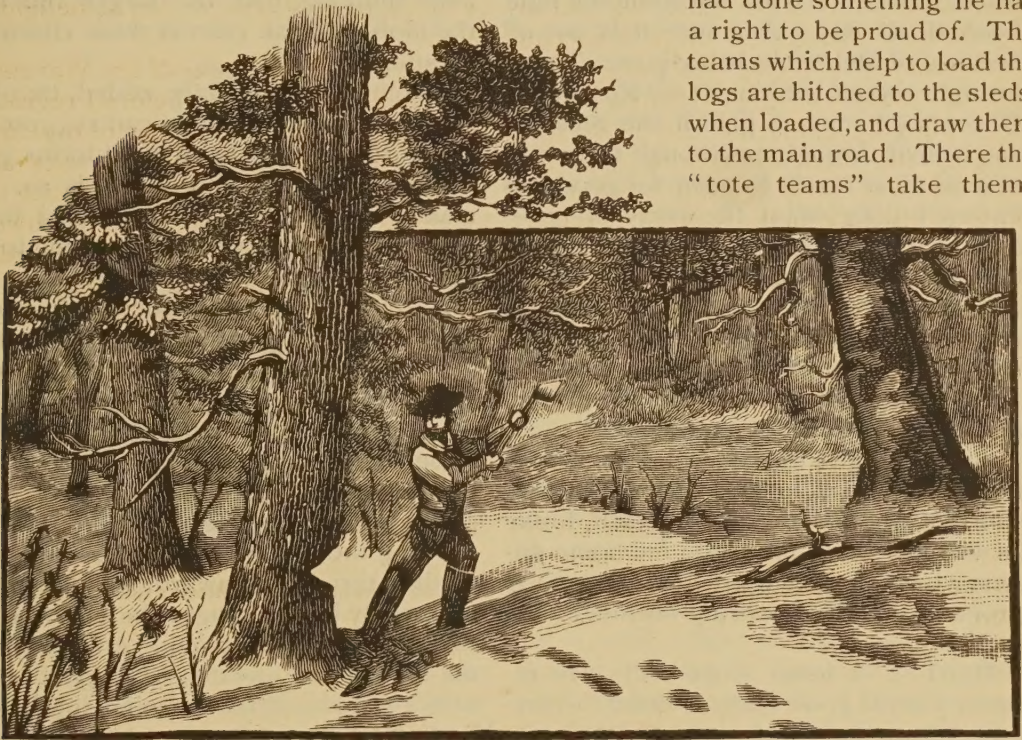
The swampers follow the sawyers. Swamping consists in cutting roads for the teams, from the main road to the fallen trees.

After the roads are swamped out, the loaders come along. They usually have ox-teams for loading, as oxen are more manageable in the snow than horses, and pull more steadily. If the snow is not too deep, travoys are used in getting the logs to the by-roads. A travoy is made of the crotch of a small, hardwood tree. The bark is taken off, leaving it smooth. The front, where the two forks of the tree unite, is beveled off, something like the front end of a sled runner. Across

the forks, about three feet from the front, a stout piece of wood is fastened. The chain by which the travoy is drawn is fastened about it at the junction of the forks. The end of a log is rolled upon the cross-piece, and secured by the use of a chain. The log is then drawn—"snaked" is the usual term in the woods—to the roads where the sleds are waiting for it. In loading logs, oxen and horses are made to do the heavy part of the work. They must do this, for men,

keep it back are crushed under it. More men are killed in the lumber-camps in this way than in any other. But few are injured or killed by falling trees.

Enormous amounts are drawn by good teams. There is always great strife and rivalry between the different camps as to who shall haul the largest load to the river. The successful teamster is regarded as a sort of hero, and always refers thereafter to "the time when he hauled the big load," with the air of a man who had done something he has a right to be proud of. The teams which help to load the logs are hitched to the sleds, when loaded, and draw them to the main road. There the "tote teams" take them;



no matter how stout they are, could never roll the great logs upon the sleds. The sleds are placed lengthwise of the log. A chain is wrapped around the log and passed over the sled to the team that stands there. When the signal to draw is given, they pull ahead, and the log slips up the skid, which is a stout piece of timber, one end of which is slipped under the log, the other resting on the sled. Men stand on the opposite side of the sled with stout hand-spikes, to prevent the log from being rolled entirely over the sled. The teams are usually so well trained to their particular work that they stop the instant their driver sings out whoa.

It sometimes happens, however, in spite of every precaution to prevent such an occurrence, that a log is drawn over the sled, and frequently, the men who try to

these teams are used only on the main road. The logs are drawn to the river, where they are unloaded on the bank, or directly upon the ice. This place is known as the landing. These landings are always made, if possible, where the banks are steep, so that logs can be piled up on the ice as they are unloaded from the sleds, to avoid the labor of rolling them into the water when the river opens.

Each lumberman, or firm, has a mark which is put on every log. Sometimes this consists of the initials of the man or firm branded upon the end of the log, but oftener of a peculiar design, cut into the log with an axe. These marks are registered, the same as trade-marks are, and the owner is legally protected from any infringement or use of them by another party. When the logs go down the river in the spring, those belonging to

different parties are sure to get mixed up, and it is necessary that each man should have a mark by which he can identify his

logs when they get to the booms, where they are sorted and rafted out.—EBEN E. REXFORD.

STELLA RAY'S JOURNAL.

March 1. This is Sunday evening. Mamma and grandpa have gone to church. Papa is resting and dozing on the library lounge, and Harvey and Effie are in bed. So, I have come to my room for a quiet time to myself, feeling in better spirits than usual, in fact, have felt uncommonly light hearted all day. Am sure it is not all because of Mehitable being gone. There, I caught myself winking at my Rosemary! Of course, I am very glad if she received any benefit through me, though the credit of it all must revert to papa, for goodness knows I didn't want the worry of her—could have been happy at moments if she had not been in the house.

Glancing at my calendar for March, I notice a thought I'd like to remember, and will trap it right here in my journal.

"Ah, but a man's reach should exceed his grasp, or what's a heaven for?"

Sure enough! the higher we aim the higher we shall attain, even if we fall short of the mark. As for myself, I may as well carry this idea into my home duties, where I most need it, for I am too prone to go off romancing outside of my daily life.

March 3. A letter from Will. He reports a royal good time, as usual; everybody, from the professors down, treats him with the greatest friendliness, except his table mate! Of her, he says: "She is always on her dignity, and treats me with a cool, off-hand politeness, which is quite exasperating." How dare she!

March 4. To-day a new President of the United States is inaugurated. Papa says he hopes to live long enough to see a cleaner, purer campaign than the one just past; does not want to die with such last recollections of his countrymen.

March 6. Have just completed reading a life of Margaret Fuller, edited by Warner. She was a great lover of flowers. In 1846 she wrote to her mother from England, that the Fuchsias grow there to a great size in the open air, and then added: "Make a bed of bog earth and sand, plant the Fuchsias, and give them constantly a great deal of water; that's all that is needed." She once wrote of wild Asters: "A very peculiar feeling

they give me, gleaming over every side. They seem my true sisters; * * * the flowers look at me more like eyes than any others."

I like to record these thoughts of hers about flowers I so well know. I can't help thinking that the larger the soul the more one can read in these charming creations.

March 7. I might have added, that it is strange their soft outlines can suggest the most arbitrary and fixed of all forms, geometrical figures, and yet it is so. It makes me catch my breath as I think that, perhaps, every idea pertaining to the sciences is embodied in nature.

March 9. Ah, to-day has been balmy, with ahint of what the spring-time has in store for us! I took Harvey and Effie out with me to look for Crocus blossoms. They are tardy this season, but we found a few, to our great delight. Effie clapped her hands and laughed in perfect glee. After going into the house, I caught Harvey drawing the outline of the blossoms, with its disk turned downwards on the paper. So quickly has he caught the idea! Even Effie pointed out to me, yesterday, that the tendrils on mamma's *Pilogyne* represent a *spirat coil*, the same having been a part of a recent lesson. I am glad to know that the children are learning habits of observation.

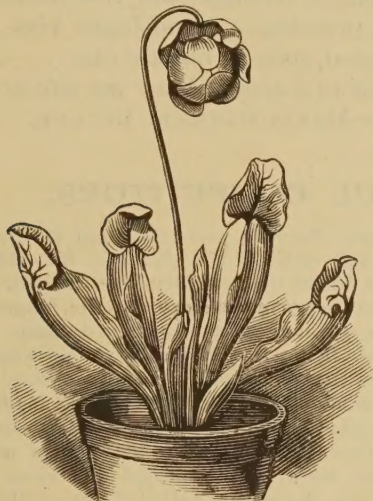
March 12. A friend has given me some Pitcher Plants, a cluster of six, which were removed, last fall, from their native marsh in Northern Indiana. They are very simple in form, being *all pitcher*, and only five or six inches high. The largest ones hold nearly two ounces of water. I shall think more of the plant than if it came from China. Wish I could learn its distinctive name.

March 14. More snow and bluster to-day. However, the Scillas are in bloom, and don't seem to mind it, but seem to enjoy a sprinkle of snow. The Crown Imperials are displaying their royal emerald tints, and the Tulips have thrust up their sea-green blades, as though defying the snow and blasts.

March 16. To-day mamma wrote to uncle George about grandpa. He seems,

at times, in a very strange way, at others is like himself again. Has had a second attack of sudden head trouble, accompanied by deafness, which cannot be accounted for. Spends much of his leisure in reading advertisements; buys all the "invalid food" preparations, hoping to get stout, and spends most of his pocket money with little else to show for it. Papa is puzzled, and mamma insists that he shall watch him.

March 17. The weather is very trying. "We girls" have a weekly society which we call "The Weekly Club." We have



PITCHER PLANT—SARRACENIA PURPUREA.

had such a terrible winter, and have talked so much about the weather that we agreed, last month, that whoever speaks of the weather during March shall pay a forfeit of ten cents for each offense, the same to go into the society fund. I have had to pay one forfeit, and I don't care. I *will* talk about the weather. Nobody can keep from it very long, however much they try.

March 22. We had an odd sermon, to-day. A part of it was about it being our duty to receive favors willingly; to be able to accept them gratefully and graciously. We were told that it is sheer pride that makes us feel that we must do all the giving, confer all the benefits. I had not thought of it in that light before; but I know I shall never deliberately incur obligations if I can help it.

March 25. I declare! Sambo is getting almost insufferable. Since driving about for papa in his "Sunday clothes," he scarcely knows which is the doctor. I overheard him, to-day, saying to a worthy

but poor man, "Ye see, sah, we's so on-common busy now—just druv, day an' night—that if youens boy aint too powahful bad, we'll just send him a powdah, an' try to git aroun' thah fo'e sun-up in the mohnin'." I reported him to papa, who laughed most heartily, but gave the fellow a settler.

March 28. O, well, there are a great many lovely, charming things in the world to be glad over, but there is always something to worry about. Mamma has just been telling me that papa has acknowledged to her that there is undoubtedly some disease of his hip bone at the point where the rebel bullet was extracted, and that it is too deeply seated, too near the joint to admit of the bone being laid bare and scraped, as is done in some cases. O, I hate to even think about it. Dear, precious papa.

March 30. Miss Haven came in to-day, and inquired if we had heard from Miss Cutler since she left, and I said something in rather a flippant way about mamma's whim for coddling all sorts of oddities, when she gave me such a grieved look that I was sorry in a moment. But I always shall think it queer that she sent so far for that woman, and kept her here so long.

March 31. Last evening, after I had retired, mamma tapped at my door, and coming in, with a light in hand, set it down, and then, sitting on the side of my bed, took my hand, and said: "Daughter, you are at an age now when it is proper that any thing connected with your home life, which seems to you an unnecessary condition, or burden, should be explained to you. Yet there is one point in the past which I had hoped to pass by—had hoped that your faith in my judgment would exempt me from criticism in the case of poor *Mehitable*. But now, I feel that, however much pain it may cost me, I must reveal to you a bit of past experience."

"O, mamma!" I interrupted, "I *do* have faith in your judgment; you shall not tell me a thing that gives you pain."

"After what has passed it will be best," she said, gravely. "Listen. When you were but a year and a half old your papa and I were summoned to the dying bed of a friend, one evening, six miles distant. *Mehitable* was just installed, and you were shy of her. So I left you in bed

with the nurse girl, of whom you had become very fond. In the closet was a vial of laudanum, which I had told her had been used for you once when you had ear-ache. It strangely happened that during that night, you awoke, screaming with ear-ache again, and the frightened nurse remembering the drops, supposed, in her ignorance, that they were to be given like soothing syrup, and administered a deadly dose, instead of moistening cotton with it for the ear. Mehitable, hearing your cries, went in, and learning what had been done called for Mustard, and soon had some down your screaming throat, while the terrified girl was speeding for the nearest doctor, who, of course, was not at home. But the Mustard and narcotic were thrown up

together, and thus, by her presence of mind, Mehitable saved your life. Had you died then, think what my life must have been to me ever after. And, Stella, as I recently saw you, day after day, administering your kindly offices to that woman, I could but feel how especially fitting it was that such opportunity was afforded for you to return to her in the smallest measure what you owe her; and yet, Stella, I shrank from revealing to you my almost criminal carelessness in the matter."

By this time I was weeping with a conflict of feelings, and the blessed woman, pressing a good-night kiss on my forehead, passed quietly out.

And so it seems I owe my life to Mehitable.—MARIA BARRETT BUTLER.

PRIZE ESSAYS—SUCCESSFUL COMPETITORS.

The subjects proposed last November for Prize Essays for publication in this MAGAZINE, have attracted much attention, and, as a result, quite a number of essays have been received on each of the subjects, except that relating to the Mushroom, and as stated last month, the time for competition on this subject will be extended to the first of May. The following named persons have been adjudged entitled to the prizes offered for the best essays as stated below.

D. H. ROBERTS, Owatonna, Minn.; Village Sanitation and Horticultural embellishment. Twenty-five Dollars.

FLORA F. DORWIN, Durand, Wis., C. E. PARNELL, Queens, N. Y.; The Rose as a house plant. Twenty dollars, one-half the amount to each.

N. B. HOLLISTER, Henryville, Ind.; Cultivation and marketing of the Blackberry. Twenty dollars.

B. FLETCHER, Strathroy, Ontario; The best varieties of Peas for market, and the best varieties for the table, and their cultivation. Twenty dollars.

J. W. ROBSON, Cheever, Kansas, S. J. RUNDEL, Pine Creek, Michigan; Destruction of the Codlin Moth. Twenty dollars, one-half the amount to each.

Miss L. M. MOLL, Mascoutah, Illinois; the most desirable Salad Plants for the private garden, and their cultivation. Fifteen dollars.

JULIA R. BEERS, Bucklin, Missouri; Annual Flowers for winter window gardening. Fifteen dollars.

C. E. PARNELL, Queens, N. Y.; The propagation and cultivation of the Cyclamen. Fifteen dollars.

L. OAKEY, Newburgh, N. Y.; Raising Chrysanthemums as pot plants. Fifteen dollars.

CHARLES EVERDING, Branford, Ct.; Winter supply of Violets and Pansies for amateurs. Fifteen dollars.

In regard to the third question, that relating to the Asparagus, no decision has yet been reached. It will be announced next month.

The judges on all the essays have been selected for their special fitness and practical knowledge of the different subjects, and each subject was considered by a different set of judges. We know that the awards have been made impartially and wholly upon the merits of the papers, and with reference to their practical value. On most of the subjects the competition has been spirited, and the patience and skill of the judges have not been a little tried, but

they have cheerfully borne their part for the general good, and we thankfully give them the credit which is their due for the wise decisions rendered.

It was especially difficult for the judges on the papers on Salad Plants to reach a decision, and it is only fair that those concerned should know something of the opinion of the committee, more than the mere announcement of the prize, as made above. When all the papers had been examined, the choice lay between three, all of which were of more than ordinary merit. The principal differences in them arose from the several points of view of the writers. As a paper for market gardeners the one offered by ROBERT J. FLEMING, of Greece, N. Y., was admirable in all respects; for professional private gardeners, the paper by B. FLETCHER, of Strathroy, Ontario, was excellent; but for the farmer, the merchant, the mechanic, and the amateur, who either make and care for their gardens personally, or by the direct superintendence of more or less unskilled workers, the essay offered by Miss L. M. MOLL was considered most suitable, and, as it is especially for people of this class that such information is desired, and who are the most numerous readers of horticultural publications, the latter paper was, we think, properly judged to be entitled to the prize, and was so awarded. The competition on the second question, the Rose as a house plant, was very close, and the committee on this question, in dividing the premium and awarding one-half to each, has acted with nice and just discrimination. On one other question there has been a division of the prize between two writers. Without making any extended explanation, we will state that one of the writers on the Codlin Moth describes a method of trapping the insect, which, there is reason to believe, is effectual; and although all other approved methods are, by this writer, referred to as things of the past, it was deemed advisable to award him a share of the prize, and thus bring before the public his practice. Any simple method that is even but partially effective in the destruction of this pest will be appreciated, and its adoption in connection with other well known plans may enable orchardists to successfully combat it without the use of arsenic or arsenical compounds to which there are serious objections.